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FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. APPLICATION NO. FILING DATE 09/923,737 08/06/2001 Michael C. Fischer HP-10981124 2129 EXAMINER 7590 05/12/2006 HEWLETT-PACKARD COMPANY ORTIZ CRIADO, JORGE L Intellectual Property Administration PAPER NUMBER **ART UNIT** P.O. Box 272400

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# BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/923,737 Filing Date: August 06, 2001 Appellant(s): FISCHER ET AL.

Lin C. Hsu For Appellant

**EXAMINER'S ANSWER** 

This is in response to the appeal brief filed 02/16/2006 appealing from the Office action mailed 10/18/2005.

## (1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

#### (2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

#### (3) Status of Claims

The statement of the status of claims contained in the brief is correct.

#### (4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

#### (5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

### (6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

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# (7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

#### (8) Evidence Relied Upon

6,636,467 Taussig 10-2003

## (9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

## Claim Rejections - 35 USC § 102

1. Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Taussig U.S. Patent No. 6,636,467.

Regarding claim 1 and 16, Taussig discloses a disk-based data storage system, a method for synchronizing newly recorded data with previously recorded data (See col. 2, lines 11-28), comprising:

measuring a first difference between a wobble reference signal and a read clock of previously recorded data (See col. 2, lines 11-28; col. 5, lines 47-57; Fig. 5-530);

writing test data on a test track to measure a second difference between the wobble reference signal and the test data, the test data written synchronous with a write clock (See col. 5, lines 58-63; Fig. 5-540,542)

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determining a delay offset by comparing the first difference and the second difference using the wobble reference signal (See col. 5, line 64 to col. 6 line 21; Fig. 5-544),

such that an appropriate delay offset is calculated utilizing only said wobble reference signal, said read clock of previously recorded data and said test data; and writing new data using the write clock and the delay offset such that the new data is synchronized with the previously recorded data (col. 7, line 31 to col. 8, line 24; Figure 7).

Regarding claim 2, Taussig discloses writing the test data to the test track (See col. 5, lines 58-63; Fig. 5-540,542)

with the delay offset set to zero (See col. 5, lines 36-45);

reading the test data from the test track; subtracting the first difference from the second difference to determine the delay offset for the write clock calibration delay (See col. 5, line 58 to col. 6 line 21; Fig. 5-544,546,548,550).

Regarding claim 3, Taussig discloses inserting the delay offset into a wobble-to-laser path to cause the new data to have a same epoch as the previously recorded data (See col. 5, line 64 to col. 6 line 21; Fig. 5-548).

Regarding claim 4, Taussig discloses the step of checking whether an error value is within predetermined limits, wherein the error value is the difference between the first difference the second difference (See col. 5, line 64 to col. 6 line 21; Fig. 5-544,546,548,550).

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Regarding claim 5, Taussig discloses adjusting the write clock in accordance with the error value, if the error value is outside the predetermined limits (See col. 5, line 64 to col. 6 line 21; Fig. 5-548).

Regarding claims 6-10 and 11-15, apparatus claims 6-10 and 11-15 are drawn to apparatus for performing the corresponding method claims 1-5 and 16. Therefore claims 6-10 and 11-15 correspond to the method claims 1-5 and 16 and are rejected for the same reasons of anticipation as outlined above.

#### (10) Response to Argument

Appellant argues that Taussig does not does not anticipate the utilization of only three variables- wobble reference signal, read clock signal of previously recorded data and the test data.

The examiner respectfully disagrees and cannot concur with the Appellant, because Taussig discloses that an appropriate delay offset is calculated utilizing only said wobble reference signal, said read clock of previously recorded data and said test data as claimed and as provided by the rationale pointed out by the examiner in the office action mailed 10/18/2005.

Appellant acknowledged this rationale in page 11, in which the examiner points out col. 7, line 31 to col. 8, line 24 with respect to Fig. 7.

Taussig measures a timing offset/phase offset by measuring a phase difference of the clock channel output signal 710 and the data channel output signal 705 and output said difference by output signal 725. Taussig measures a first and second difference for the previously recorded data (calibration sequence) and the test data sequence respectively, and compares these phase differences until an appropriate delay offset is calculated.

In details, Taussig measures a first difference/(time offset/ phase difference) between a wobble reference signal (1), which is the signal 710 outputted from clock channel output "484" in Fig. 4b (See col. 5, lines 17-21, lines 52-54; Fig. 4b) and a read clock signal 705 of previously recorded data signal (2) ("calibration data sequence"), which is "data previously recorded" on the disk, is then read and outputted from the data channel "482" in Fig. 4b, and the first difference/(time offset/ phase difference) between a wobble reference signal and the read clock of previously recorded data/("calibration data sequence previously") is obtained, in steps "520" to "530" of Fig. 5, (See col. 5, lines 35-57).

Taussig writes test data on a test track to measure a second difference between the wobble reference signal (1) and the test data (3) signal 705 outputted from the data channel "482" in Fig. 4b, the test data written synchronous with a write clock (See col. 5, lines 58-63; Fig. 5-540,542).

Taussig determines a delay offset by comparing the first difference and the second difference (Fig. 5 step 544), utilizing only three signals measurements:

- (1) the wobble reference signal
- (2) the read clock of previously recorded data
- (3) the clock of the test data

As described and shown in the embodiment for measuring the timing/phase offset in Fig. 7, utilized in the process 500 of Fig. 5, shows that the first and second differences outputted 725 are obtained by utilizing only the wobble reference signal output clock 710 and the previously recorded data and test data reference signals 705. Therefore, the portions and rationale provided by the examiner clearly shows that Taussig anticipate the claimed invention.

Appellant argues that Taussig does not anticipate the invention because of the rationale that includes equations found in column 7 at line 4 and lines 10-11 of the detailed description of Taussig.

The examiner concur with the Appellant that Taussig does not anticipate the invention in view of the portions and rationale provided by the Appellant which includes equations found in column 7 at line 4 and lines 10-11, that discloses another embodiment regarding Fig. 6 for measuring the timing offset, that utilize said wobble reference signal, said read clock of previously recorded data and said test data and also an address marker.

However, the portions of the Appellant's rationale of column 7 at line 4 and lines 10-11 are not the portions and rationale in the grounds of rejections, in which the examiner relies, as outlined above.

## (11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully subpritted,

Juliano Jorge L. Ortiz-Criado Patent Examiner Art Unit 2627

Conferees:

Wayne R. Young

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